

4. Note on *Bucklandium diluvii*, König, a Siluroid Fish from the London Clay of Sheppey. By A. SMITH WOODWARD, F.Z.S., F.G.S., of the British Museum (Nat. Hist.).

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(Plate XXII.)

In his well-known 'Icones Fossilium Sectiles,' pl. viii. no. 91, König figured a remarkable fossil from the London Clay of the Isle of Sheppey, which he mentioned in the text as not certainly determinable, but generally regarded by the anatomists who had examined it as pertaining to some type of Lizard. In 1843 Morris¹ recognized the piscine nature of this fossil and assigned it to the Acanthopterygian *Ephippus*; while Pictet² afterwards suspected that it might be identical with the so-called *Glyptocephalus* of Agassiz, which had not been described, but was considered to pertain to an early Eocene type of Scleroderm Teleostean.

The unique specimen in question is preserved in the British Museum, where it has long been placed among the fossil fishes of uncertain position by Mr. William Davies; and in the Reports of the last meeting of the British Association (p. 679) the present writer has pointed out that it represents the head and pectoral arch of the earliest undoubted Siluroid fish hitherto discovered. The original figures of König, however, do not suffice for the demonstration of its characters; and it is the object of the present note briefly to describe the main points with the aid of the accompanying Plate XXII.

The fossil exhibits the hinder half of the roof of the skull, with the greater portion of the pectoral arch in position, though slightly bent backwards; and the mass of anchylosed vertebræ, with the base of the cranium, is displaced downwards and thrown beneath the clavicles. All the bones are remarkably strong, and the exposed surfaces are ornamented with irregularly scattered pointed tubercles; but in the extrication from the hardened clayey matrix the precise form of the inner elements has unfortunately been destroyed.

The head must have been originally at least as deep as broad (Plate XXII. fig. 1), and the roof exhibits very little flattening, but is strongly arched from side to side (fig. 2). Posteriorly, the supraoccipital (*so.*) projects in the usual manner, probably to meet a dermal plate upon the nape; and the posttemporal element (*pt.*) seems to be merged with the bones of the postero-lateral angles of the cranium. The supraoccipital has been partly broken during extrication from the matrix, but a sharp median ridge is seen to extend throughout its length, and from this on each side there is a steep slope. The frontals (*fr.*) probably meet in front, and the central crest then disappears. All the cranial bones, however, are indistinguishably

¹ J. Morris, 'Catalogue of British Fossils,' p. 193.

² F. J. Pictet, 'Traité de Paléontologie,' 2nd edit., vol. ii. p. 123.



